



State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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Site ID: 10354

Title V Operating Permit

PERMIT NUMBER: 3500063001

DATE OF PERMIT: December 3, 2002

Date of Last Revision: September 17, 2006

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

University of Utah
200 South University
Salt Lake City, UT 84112

Permitted Location:

University of Utah facilities
200 S University Ave
Salt Lake City, UT 84112

UTM coordinates: 4,512,800 meters Northing, 429,440 meters Easting
SIC code: 8221

ABSTRACT

Emissions from the University of Utah are primarily due to the operation of: boilers, comfort heating equipment, and emergency generators. Large boilers located on the Lower Campus are covered by the Utah State Implementation Plan (SIP) Section IX, Part H.2. Other large boilers located throughout the campus are not covered by the SIP, but are subject to the New Source Performance Standard (NSPS) found in 40 CFR 60 Subpart Dc. The University of Utah is a major source of carbon monoxide (CO) and oxides of nitrogen (NO_x).

UTAH AIR QUALITY BOARD

By:

Richard W. Sprott, Executive Secretary

Prepared By:

Robert Grandy

Operating Permit History

12/3/2002 - Permit issued	Action initiated by an initial operating permit application	
1/10/2005 -Permit modified	Action initiated by an administrative amendment (initiated by source)	Consolidation of Approval Orders, removal of redundant conditions, addition of new equipment, addition of facilities newly under University control, deletion of facilities no longer under University control, and to update requirements. Further details are included in the review comments at the end of this permit.
9/17/2006 -Permit modified	Action initiated by an administrative amendment (initiated by source)	Addition of nine emergency back-up generators.

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

Section I: General Provisions

I.A. Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B. Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C. Duty to Comply.

- I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))
- I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))
- I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))
- I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D. Permit Expiration and Renewal.

I.D.1 This permit is issued for a fixed term of five years and expires on December 3, 2007. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due by June 3, 2007. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E. Application Shield.

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F. Severability.

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G. Permit Fee.

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H. No Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I. Revision Exception.

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J. Inspection and Entry.

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K. Certification.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L. Compliance Certification.

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than **December 3, 2003** and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

- I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification shall be based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and
- I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.
- I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
EPA, Region VIII
999 18th Street, Suite 300
Denver, CO 80202-2466

I.M. Permit Shield.

- I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:
- I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))
- I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))
- I.M.2 Nothing in this permit shall alter or affect any of the following:
- I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))
- I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))
- I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))
- I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N. Emergency Provision.

I.N.1 An “emergency” is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))

I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))

I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))

I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))

I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))

I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

I.O. Operational Flexibility.

Operational flexibility is governed by R307-415-7d(1).

I.P. Off-permit Changes.

Off-permit changes are governed by R307-415-7d(2).

I.Q. Administrative Permit Amendments.

Administrative permit amendments are governed by R307-415-7e.

I.R. Permit Modifications.

Permit modifications are governed by R307-415-7f.

I.S. **Records and Reporting.**

I.S.1 Records.

I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))

I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

I.S.1.b.2 The date analyses were performed.

I.S.1.b.3 The company or entity that performed the analyses.

I.S.1.b.4 The analytical techniques or methods used.

I.S.1.b.5 The results of such analyses.

I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.

I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))

I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))

I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. **Prompt, as used in this condition, shall be defined as written notification within 14 days.** Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and
Environmental Justice (mail code 8ENF)
999 18th Street, Suite 300
Denver, CO 80202-2466

For reports, notifications, or other correspondence
related to permit modifications, applications, etc.

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance
Air & Radiation Program (mail code 8P-AR)
999 18th Street, Suite 300
Denver, CO 80202-2466
Phone: 303-312-6440

I.T. Reopening for Cause.

- I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U. Inventory Requirements.

Emission inventories shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

Section II: SPECIAL PROVISIONS

II.A. Emission Unit(s) Permitted to Discharge Air Contaminants.

(R307-415-4(3)(a) and R307-415-4(4))

II.A.1 Misc. Parts Washers (subject to R307-335-2) (designated as 23)

Unit Description: Miscellaneous parts washers located on campus using VOC containing solvents and subject to R307-335-2. Does not include parts washers using citrus based solvents.

II.A.2 LC Boilers, UH Boilers, Misc Equip, and Generators (designated as 1-11)

Unit Description: Includes LC (Lower Campus) Boilers, UH (University Hospital) Boilers, Misc Equip (natural gas), and Generators (emergency diesel) described below.

II.A.3 LC Boilers (designated as 1-5)

Unit Description: Five pre-NSPS boilers located on the lower campus in building 303 that can burn natural gas or coal. Boilers 1-2 are rated at approximately 60 MMBTU/hr each. Boilers 3-5 are rated at approximately 105 MMBTU/hr each.

II.A.4 UH Boilers (designated as 6-9)

Unit Description: Three natural gas/diesel fired boilers located at the University Hospital. One boiler rated about 9.83 MMBTU/hr (Building 521). Two boilers rated about 9.88 MMBTU/hr each (Building 525).

II.A.5 Misc Equipment (designated as 10)

Unit Description: N.g. equipment less than 5 MMBTU/hr each. Also, n.g. fired emergency generators with a total combined rating of 620 kW. Does not include equipment at Rice Stadium, New Student Housing, University Hospital, Huntsman Cancer Institute, or Combustion Lab.

II.A.6 Diesel-Generators (designated as 11)

Unit Description: Generators with an approx. combined capacity of 9,885 kW in the following buildings: 3, 4, 7, 13, 14, 19, 28, 35, 49, 57, 63, 64, 66, 82, 84, 86, 87, 95, 179, 205, 210, 213, 301, 303, 305, 347, 500, 521, 525, 533, 540, 570, 585, 587, 697, 801 and 853.

II.A.7 Diesel generators- 4223 bhp Combined (designated as 11A)

Unit Description: Diesel emergency back-up generators larger than 600 bhp. They support buildings #62 (Warnock Engineering Building), #86 (Marriott Library), #179 (Eccles Broadcast Center), and #585 Komas in Research Park.

II.A.8 Diesel generators- 644 bhp Combined (designated as 11B)

Unit Description: Diesel emergency generators smaller than 600 bhp. They support buildings #53 (University Student Union), #212 (Indoor/Outdoor Practice Field), and #585 Komas in Research Park.

II.A.9 Gasoline Fired Generators- 174 bhp Combined (designated as 11C)

Unit Description: Gasoline fired emergency generators that support buildings #84 (Biology) and #588 (Nursing).

II.A.10 UC NSPS Boilers (designated as 13)

Unit Description: Three NSPS (Subpart Dc) boilers located at the upper campus (UC) high temperature water-heating plant. Boilers all have 15% flue gas recirculation, and are fired on natural gas or diesel. Approximate rating for each boiler is 87.5 MMBTU/hr.

II.A.11 UC Diesel Emergency Generator (designated as 14)

Unit Description: One diesel fired emergency generator located at the upper campus (UC) high temperature water-heating plant. Approximate rating is 800 kW. Located in Building 302.

- II.A.12 **New Student Housing-Rice Stadium NG Equipment** (designated as 18)
Unit Description: Includes all natural gas fired equipment located in New Student Housing and Rice Stadium.
- II.A.13 **Rice Stadium NSPS Boiler** (designated as 15)
Unit Description: Natural gas fired boiler rated at approximately 14.7 MMBTU/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc.
- II.A.14 **Rice Stadium Small Boiler** (designated as 30)
Unit Description: Boiler rated at less than 5 MMBTU/hr, located on east side of stadium. No unit-specific applicable requirements.
- II.A.15 **Rice Stadium Emergency Diesel Generator** (designated as 16)
Unit Description: One diesel fired emergency generator having an approximate rating of 900 kW (1337 bhp).
- II.A.16 **New Student Housing Emergency Diesel Generators** (designated as 17)
Unit Description: Three diesel fired emergency generators identified as follows: Building 800-Portable, approximate rating of 66 kW (68 bhp); Building 815, approximate rating of 66 kW (68 bhp); Building 821, approximate rating of 208 kW (317 bhp).
- II.A.17 **Combustion Lab- U-Furnace** (designated as 22)
Unit Description: Natural gas fired U-furnace that can burn natural gas, coal, and various other experimental fuels. Located in the Merrill Engineering Building, room 2505b. This furnace has an approximate rating of 0.15 MMBTU/hr.
- II.A.18 **Paint Booth and Print Plant Combined** (designated as 12)
Unit Description: Includes the paint booth located in Building 350 and equipment located in the printing plant.
- II.A.19 **Print Plant** (designated as 24)
Unit Description: Printing operations including letter and offset presses.
- II.A.20 **Paint Booth** (designated as 25)
Unit Description: Painting operation located in Building 350 used primarily for refinishing woodfurniture. Equipped with particulate filters.
- II.A.21 **Huntsman Cancer Institute (Phase I)** (designated as 26)
Unit Description: Includes two NSPS Boilers (~16.8 MMBTU/hr each), two Small Boilers (~5 MMBTU/hr each), and Two Diesel Emergency Generators(~2,000 kW and ~750 kW).
- II.A.22 **Huntsman Cancer Institute (Phase I)- NSPS Boilers** (designated as 27)
Unit Description: Two natural gas/diesel fired boilers, each rated approximately 16.8 MMBTU/hr. Subject to NSPS, 40 CFR, Part 60, Subpart Dc. Located in building 555.
- II.A.23 **Huntsman Cancer Institute (Phase I)- Small Boilers** (designated as 28)
Unit Description: Two small natural gas/diesel fired boilers, each rated at approximately 5 MMBTU/hr.
- II.A.24 **Huntsman Cancer Institute- Diesel Em. Generators.** (designated as 29)
Unit Description: Two diesel-fired emergency generators rated at approximately 750 kW and 2,000 kW. Located in building 555
- II.A.25 **Huntsman Cancer Institute-Phase II** (designated as 30)
Unit Description: Two boilers and two emergency generators located at the Huntsman Cancer Institute Phase II
- II.A.26 **Huntsman Cancer Institute-Phase II-Boilers 1-2** (designated as 31)
Unit Description: Two boilers with approximate input ratings of 6.0 MMBTU each, fired on either natural gas or fuel oil. Located in building 556.
- II.A.27 **Huntsman Cancer Institute-Phase II-Generators** (designated as 32)
Unit Description: Two diesel fired emergency generators with approximate ratings of 1,500 kW each. Located in building 556

- II.A.28 **Incinerator** (designated as 33)
Unit Description: Incinerator for the combustion of pathological waste, low level radioactive waste, or chemotherapeutic waste. The incinerator is located in the Animal Resource Center.
- II.A.29 **Fume Hoods** (designated as 34)
Unit Description: Fume hoods located in the art department and in various labs throughout the campus.
- II.A.30 **Small Fuel Storage Tanks** (designated as 35)
Unit Description: Various fuel tanks located throughout the campus; each tank has a storage capacity of 10,000 gallons or less. No unit-specific applicable requirements.
- II.A.31 **Fuel Storage Tanks (NSPS)** (designated as 36)
Unit Description: Located at University Hospital. Two diesel tanks approximately 20,000 gallons each, one diesel tank approximately 30,000 gallons, and one jet fuel tank approximately 12,000 gallons. These tanks are subject to 40 CFR Part 60, Subpart Kb.
- II.A.32 **Eccles Critical Care Pavilion** (designated as 37)
Unit Description: Two NSPS Boilers and one diesel emergency generator located at the Eccles Critical Care Pavilion.
- II.A.33 **Eccles Critical Care Pavilion-NSPS Boilers 1-2** (designated as 38)
Unit Description: Two boilers with approximate input ratings of 15.0 MMBTU each, fired on either natural gas or fuel oil. Located in building 529.
- II.A.34 **Eccles Critical Care Pavilion-Diesel Generator.** (designated as 39)
Unit Description: One diesel fired emergency generator with approximate rating of 1,000 kW. Located in building 529.
- II.A.35 **Emma Eccles Jones Medical Research Center** (designated as 40)
Unit Description: One boiler and one emergency generator located at the Emma-Eccles-Jones Medical Research Center.
- II.A.36 **Emma-Eccles-Jones Medical Research- NSPS Boiler** (designated as 41)
Unit Description: One NSPS boiler with an approximate input rating of 19.0 MMBTU, fired on natural gas. Located in building 565.
- II.A.37 **Emma-Eccles-Jones Medical Research-Generator** (designated as 42)
Unit Description: One diesel fired emergency generator with an approximate rating of 1,000 kW. Located in building 565
- II.A.38 **Moran Eye Center Phase I** (designated as 43)
Unit Description: Diesel Generator and Boiler.
- II.A.39 **Moran Eye Center Phase I-Diesel Generator.** (designated as 44)
Unit Description: One diesel fired emergency generator with an approximate rating of 500 kW. Located in building 550.
- II.A.40 **Moran Eye Center Phase I: Out of Service Boiler.** (designated as 45)
Unit Description: A boiler listed for identification purposes that is on-site but out of service.
- II.A.41 **Moran Eye Center Phase II-Diesel Generators.** (designated as 46)
Unit Description: Two diesel fired emergency generators with approximate ratings of 300 and 700 kW. Located in building 523.
- II.A.42 **Health Sciences Education Bldg- Diesel Generator** (designated as 47)
Unit Description: One diesel fired emergency generator with an approximate rating of 400 kW. Located in building 575
- II.A.43 **Olympic Cauldron** (designated as 48)
Unit Description: This is a seldom used ornamental monument from the Salt Lake 2002 Olympics. Listed for identification purposes only.

- II.A.44 **University Hospital Ethylene Oxide Sterilizer** (designated as 49)
Unit Description: This is a small sterilization unit unregulated due to size. Listed for identification purposes only
- II.B. **Requirements and limitations.**
The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated: (R307-415-6a(1))
- II.B.1 **Conditions on permitted source (Source-wide)**
- II.B.1.a **Condition:**
At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected emission unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-5 and 40 CFR 60.11(d); condition originated in R307-401-5 and 40 CFR 60.11(d)]
- II.B.1.a.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.1.a.2 **Recordkeeping:**
Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.1.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.1.b **Condition:**
The permittee shall burn #2 diesel/fuel oil or better in all equipment permitted for diesel/fuel oil combustion. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04, DAQE-AN0354012-06]
- II.B.1.b.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.1.b.2 **Recordkeeping:**
Fuel receipts shall be maintained to demonstrate usage of the following low-sulfur fuels having a sulfur content less than 0.5 percent by weight: Grade Low Sulfur No. 1 Diesel, Grade Low Sulfur No. 2 Diesel, Grade No. 1 Diesel, Grade No. 2 Diesel.
- II.B.1.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c

Condition:

Unless stated otherwise in this permit, start-up maintenance firing of each emergency generator shall not exceed 25 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a)[BACT]; condition originated in DAQE-AN0354010-04, DAQE-AN0354012-06]

II.B.1.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.c.2

Recordkeeping:

Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.1.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2

Conditions on Misc. Parts Washers (subject to R307-335-2) (23)

II.B.2.a

Condition:

The permittee shall ensure that the following conditions are met:

(1) Each solvent degreaser is equipped with a cover which shall remain closed except during actual loading, unloading or handling of parts in cleaner. The cover shall be designed so that it can be easily operated with one hand if

(a) the volatility of the solvent is greater than 2 kPa (15 mm Hg or 0.3 psi) measured at 38 degrees C (100 degrees F),

(b) the solvent is agitated, or

(c) the solvent is heated.

(2) An internal draining rack for cleaned parts shall be installed on which parts shall be drained until all dripping ceases. If the volatility of the solvent is greater than 4.3 kPa (32 mm Hg at 38 degrees C (100 degrees F)), the drainage facility must be internal, so that parts are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Waste or used solvent shall be stored in covered containers. Waste solvents or waste materials which contain solvents shall be disposed of by recycling, reclaiming, by incineration in an incinerator approved to process hazardous materials, or by an alternate means approved by the executive secretary.

(4) Tanks, containers and all associated equipment shall be maintained in good operating condition and leaks shall be repaired immediately or the degreaser shall be shutdown.

(5) Written procedures for the operation and maintenance of the degreasing or solvent cleaning equipment shall be permanently posted in an accessible and conspicuous location near the equipment.

(6) If the solvent volatility is greater than 4.3 kPa (33 mm Hg or 0.6 psi) measured at 38 degrees C (100 degrees F), or if solvent is heated above 50 degrees C (120 degrees F), then one of the following control devices shall be used:

(a) freeboard that gives a freeboard ratio greater than 0.7;

(b) water cover if the solvent is insoluble in and heavier than water;

(c) other systems of equivalent control, such as a refrigerated chiller or carbon absorption.

(7) If used, the solvent spray shall be a solid fluid stream at a pressure which does not cause excessive splashing and may not be a fine, atomized or shower type spray.

[Authority granted under R307-335-2; condition originated in DAQE-AN0354010-04]

II.B.2.a.1

Monitoring:

A visual observation shall be conducted monthly for all equipment and applicable work practices.

II.B.2.a.2

Recordkeeping:

Results of monthly inspections and the volatility of the solvent(s) being used shall be recorded and maintained as described in Provision I.S.1 of this permit.

II.B.2.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3

Conditions on LC Boilers, UH Boilers, Misc Equip, and Generators (1-11)

II.B.3.a

Condition:

The following consumption limits shall not be exceeded:

(A) 945.8 MM Scf of natural gas per rolling 12-month period for Boilers 1-5, of which total consumption for Boilers 3-5 shall not exceed 698 MM Scf per rolling 12-month period.

(B) 200 MM Scf of natural gas per rolling 12-month period for the UH Boilers and Misc Equipment.

(C) 1,060 tons of coal per rolling 12-month period for boilers 1-5.

[Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04]

II.B.3.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.3.a.2

Recordkeeping:

Fuel consumption shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly natural gas consumption for Boilers 1-5 shall be determined using gas meters installed on each boiler. Monthly natural gas consumption for other boilers and generators shall be determined using monthly billings. Monthly coal consumption shall be determined with coal firing records for Boilers 1-5.

II.B.3.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4

Conditions on LC Boilers (1-5)

II.B.4.a

Condition:

Emissions of the specified pollutants from Boilers 1&2 shall not exceed the following amounts:

(a) From each boiler while burning natural gas: NO_x 10.0 lb/hr and 117 ppmdv (3% O₂ dry).

(b) From each boiler while burning coal:

(1) NO_x 42.6 lb/hr and 485 ppmdv (3% O₂ dry).

(2) SO₂ 71.3 lb/hr and 582 ppmdv (3% O₂ dry).

(3) PM₁₀ 23.8 lb/hr and 0.23 grains/dscf (68 degrees F, 29.92 in Hg).

[Authority granted under Utah SIP Section IX.H.2.b.YY; condition originated in Utah SIP Section IX.H.2.b.YY]

II.B.4.a.1

Monitoring:

(1) Stack testing frequency:

(a) Coal firing:

(i) PM₁₀- every 3 years.

(ii) SO₂- every 3 years.

(iii) NO_x- every 3 years.

(b) Natural gas firing:

(i) NO_x- every 3 years.

(2) Sample location: 40 CFR 60, Appendix A, Method 1.

(3) Volumetric flow rate: 40 CFR 60, Appendix A, Method 2.

(4) Stack testing methods:

(a) Coal firing:

(i) PM₁₀:

For stacks in which no liquid drops are present, 40 CFR 51, Appendix M, Methods 201 or 201a shall be used. The back half condensibles shall also be tested using a method approved by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in AP-42, Appendix C or other data acceptable to the Executive Secretary.

The back half condensibles shall be used for inventory purposes only.

(ii) SO₂: 40 CFR 60, Appendix A, Method 6, 6A, 6B, or 6C.

(iii) NO_x: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.

(b) Natural Gas Firing:

(i) Nox: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.

(5) Calculations:

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(6) Production rate during testing:

The production rate during testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(7) Notification:

At least 30 days prior to conducting stack testing, the permittee shall notify the Executive Secretary of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the permittee, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

II.B.4.a.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.4.a.3

Reporting:

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b

Condition:

Emissions of the specified pollutants from Boilers 3,4, and 5 shall not exceed the following amounts:

(a) For each boiler while burning natural gas:

NO_x 25.0 lb/hr and 187 ppmdv (3% O₂ dry).

(b) For each boiler while burning coal:

(1) NO_x 74.7 lb/hr and 485 ppmdv (3% O₂ dry).

(2) SO₂ 125 lb/hr and 582 ppmdv (3% O₂ dry).

(3) PM₁₀ 41.6 lb/hr and 0.23 grains/dscf (68 degrees F, 29.92 in Hg).

[Authority granted under Utah SIP Section IX.H.2.b.YY; condition originated in Utah SIP Section IX.H.2.b.YY]

II.B.4.b.1

Monitoring:

(1) Stack testing frequency:

(a) Coal firing:

(i) PM₁₀- every 3 years.

(ii) SO₂- every 3 years.

(iii) NO_x- every 3 years.

(b) Natural gas firing:

(i) NO_x- every 3 years.

(2) Sample location:

40 CFR 60, Appendix A, Method 1.

(3) Volumetric flow rate:

40 CFR 60, Appendix A, Method 2.

(4) Stack testing methods:

(a) Coal firing:

(i) PM₁₀:

For stacks in which no liquid drops are present, 40 CFR 51, Appendix M, Methods 201 or 201a shall be used. The back half condensibles shall also be tested using a method approved by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops shall be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using a method specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in AP-42, Appendix C or other data acceptable to the Executive Secretary.

The back half condensibles shall be used for inventory purposes only.

(ii) SO₂: 40 CFR 60, Appendix A, Method 6, 6A, 6B, or 6C.

(iii) NO_x: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.

(b) Natural Gas Firing:

(i) Nox: 40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E.

(5) Calculations:

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

(6) Production rate during testing:

The production rate during testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

(7) Notification:

At least 30 days prior to conducting stack testing, the permittee shall notify the Executive Secretary of the date, time and place of such testing. A source test protocol shall be submitted along with the testing notification sent to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to testing. The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the permittee, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

II.B.4.b.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.4.b.3

Reporting:

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.c

Condition:

Natural gas shall be used as the primary fuel in LC Boilers 1-5. Coal shall be used only during periods of natural gas curtailment and for maintenance firing in LC Boilers 1-5. Natural gas curtailment is defined as periods when the natural gas provider/supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the annual BTU requirement. In addition, maintenance firings shall only be scheduled between March 1, and October 31 of any calendar year. [Authority granted under Utah SIP Section IX.H.2.b.YY; condition originated in DAQE-AN0354010-04]

II.B.4.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.4.c.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that coal was fired, the duration in hours that coal was fired, the amount of coal consumed, and the reason for firing coal.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement =
(Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100

II.B.4.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.d

Condition:

Sulfur content of coal or any mixture of coals burned in Boilers 1-5 shall be no greater than 0.6 percent by weight. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.4.d.1

Monitoring:

Sulfur content of coal shall be determined by ASTM Method D-3177-75.
(origin: Utah SIP Section IX.H.2.b.YY)

II.B.4.d.2

Recordkeeping:

The sulfur content (in weight percent) of each shipment of coal shall be recorded.
(origin: Utah SIP Section IX.H.2.b.YY)

II.B.4.d.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.e

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.4.e.1

Monitoring:

During periods of natural gas usage, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

Visible emissions observations shall be conducted for each boiler semiannually during a period of coal usage. Observations shall be conducted in accordance with 40 CFR, Part 60, Appendix A, Method 9.

II.B.4.e.2

Recordkeeping:

Records of fuel usage shall be maintained to document periods during which natural gas has been burned.

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.4.e.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5

Conditions on UH Boilers (6-9)

II.B.5.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.5.a.1

Monitoring:

While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

* Semi-annual periods are defined as the periods from January 1st through June 30 th, and July 1st through December 31 st, of each year.

II.B.5.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.5.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.5.b

Condition:

Fuel for the UH Boilers shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.5.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.5.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement = (Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100

II.B.5.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6

Conditions on Misc Equipment (10)

II.B.6.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.6.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.6.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.6.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6.b

Condition:

Maintenance firing of the emergency generator located in the Madsen Clinic-Building 685, shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.6.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.6.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.6.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7

Conditions on Diesel-Generators (11)

II.B.7.a

Condition:

Maintenance firing for each of the following generators shall not exceed the hours specified:

- (1) 1,000 kW generator (building 525/Hospital) - 35 hours per rolling 12-month period.
- (2) 1,000 kW generator (building 521/School of Medicine) - 35 hours per rolling 12-month period.
- (3) 500 kW generator (building 521/School of Medicine) - 35 hours per rolling 12-month period.
- (4) 500 kW generator (building 521/School of Medicine) - 35 hours per rolling 12-month period.
- (5) 600 kW generator (building 303/Lower Campus High Temperature Water Plant) - 50 hours per rolling 12-month period.

These emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.7.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.7.a.2

Recordkeeping:

Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.7.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7.b

Condition:

Visible emissions shall be no greater than 10 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.7.b.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.7.b.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.7.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8

Conditions on Diesel generators- 4223 bhp Combined (11A)

II.B.8.a

Condition:

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.8.a.1

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity

determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.8.a.2

Recordkeeping:

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.8.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.b

Condition:

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.8.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.8.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.8.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.8.c

Condition:

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required.

If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06]

II.B.8.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.8.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.8.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.B.9

Conditions on Diesel generators- 644 bhp Combined (11B)

II.B.9.a

Condition:

Visible emissions shall be no greater than 20 percent opacity.

[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.9.a.1

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.9.a.2

Recordkeeping:

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.9.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9.b

Condition:

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.9.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.9.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.9.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9.c

Condition:

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required.

If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06]

II.B.9.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.9.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.9.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.B.10

Conditions on Gasoline Fired Generators- 174 bhp Combined (11C)

II.B.10.a

Condition:

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.10.a.1

Monitoring:

If an affected emission unit is operated during a calendar year, an opacity observation of the emission unit shall be performed in the calendar year that the emission unit was operated. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.10.a.2

Recordkeeping:

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.10.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.b

Condition:

Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354012-06]

II.B.10.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.10.b.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.10.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.10.c

Condition:

The Executive Secretary shall be notified in writing when the installation of the referenced equipment has been completed and is operational, as an initial compliance inspection is required.

If the construction and/or installation has not been completed by January 12, 2008, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke construction approval in accordance with R307-401-18. [Authority granted under R307-401-18; condition originated in DAQE-AN0354012-06]

II.B.10.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.10.c.2

Recordkeeping:

The permittee shall maintain a copy of the notification required by this permit condition in accordance with Provision I.S.1 of this permit.

II.B.10.c.3

Reporting:

To insure proper credit for the notification requirement of the above condition, correspondence should be sent to the Executive Secretary, attn: Compliance Section. Reports and notifications shall be submitted in accordance with Section I of this permit.

II.B.11 **Conditions on UC NSPS Boilers (13)**

II.B.11.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.11.a.1 **Monitoring:**

While burning natural gas, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

An opacity observation shall be made during each semi-annual period* when fuel oil is burned. The opacity observation shall be conducted by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9, while the emission unit is operating. If visible emissions other than condensed water vapor are observed from the emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial visual emission observation. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

* Semi-annual periods are defined as the periods from January 1st through June 30 th, and July 1st through December 31 st, of each year.

II.B.11.a.2 **Recordkeeping:**

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.11.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.b **Condition:**

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.11.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.11.b.2 **Recordkeeping:**

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement =
(Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100

II.B.11.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.c

Condition:

The following limits shall not be exceeded:

A. 858 MM Scf of natural gas per rolling 12-month period for all boilers.

B. 25 hours of maintenance operation per rolling 12-month period for each boiler when fired on diesel.

[Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04]

II.B.11.c.1

Monitoring:

Fuel consumption shall be determined based on a 12-month rolling total calculated by 20th day of each month using the previous 12 months data. Monthly natural gas consumption shall be determined using gas meters installed on each boiler.

II.B.11.c.2

Recordkeeping:

Records of consumption shall be kept on a monthly basis. Records documenting boiler maintenance-operation shall be kept and shall include: date of boiler maintenance-operation, duration in hours, and fuel type used.

II.B.11.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11.d

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)]

II.B.11.d.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

- II.B.11.d.2 **Recordkeeping:**
Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.11.d.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.11.e **Condition:**
The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A.

[Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0354010-04]
- II.B.11.e.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.11.e.2 **Recordkeeping:**
All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.11.e.3 **Reporting:**
The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.
- II.B.12 **Conditions on UC Diesel Emergency Generator (14)**
- II.B.12.a **Condition:**
Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour.

[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.12.a.1 **Monitoring:**
Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.12.a.2 **Recordkeeping:**
A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.12.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.12.b **Condition:**
Maintenance firing of the emergency generator located in Building 302 shall not exceed 60 hours per rolling 12-month period. Emergency generators shall be used for electricity

production only during periods when electric power from the utilities is interrupted.
[Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04]

II.B.12.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.12.b.2

Recordkeeping:

Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.12.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.13

Conditions on New Student Housing-Rice Stadium NG Equipment (18)

II.B.13.a

Condition:

Natural gas usage shall be no greater than 165 MM SCF per 12 month rolling period.
[Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.13.a.1

Monitoring:

Based on the first day of each month, a new 12-month total shall be calculated using data from the previous twelve months. Monthly calculations shall be made no later than 20 days after the end of each calendar month. For the Rice Stadium boiler, consumption shall be determined daily using a gas meter. For all other natural gas fired equipment, consumption shall be determined using monthly billings.

II.B.13.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.13.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.14

Conditions on Rice Stadium NSPS Boiler (15)

II.B.14.a

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A.
[Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0354010-04]

II.B.14.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.14.a.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.14.a.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.14.b

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.14.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.14.b.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.14.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.14.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)]

II.B.14.c.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.14.c.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.14.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.15

Conditions on Rice Stadium Small Boiler (30)

II.B.15.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.15.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.15.a.2

Recordkeeping:

In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.

II.B.15.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.16

Conditions on Rice Stadium Emergency Diesel Generator (16)

II.B.16.a

Condition:

Visible emissions shall be no greater than 10 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.16.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.16.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.16.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.17

Conditions on New Student Housing Emergency Diesel Generators (17)

II.B.17.a

Condition:

Visible emissions shall be no greater than 10 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.17.a.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.17.a.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.17.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18 **Conditions on Combustion Lab- U-Furnace (22)**

II.B.18.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.18.a.1 **Monitoring:**

A visual opacity survey of each affected emission unit shall be performed on a quarterly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.18.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. If an observation indicates visible emissions, a notation of those visible emissions shall be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.18.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18.b **Condition:**

Hours of operation while using coals and various other experimental fuels shall not exceed 2,500 hours per 12-month period. The feed rate of coal shall not exceed 10 lbs/hr. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04]

II.B.18.b.1 **Monitoring:**

Based on the 1st day of each month, using the previous twelve months data, a rolling 12 month total shall be calculated for hours of operation using fuels other than natural gas. Rolling 12-month totals shall be calculated by the 20th day of each month.

Hourly coal feed rates shall also be recorded.

II.B.18.b.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.18.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.18.c

Condition:

Natural gas consumption shall be no greater than 5276400 cubic feet per rolling 12-month period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.18.c.1

Monitoring:

Based on the first day of each month, a new 12-month rolling total shall be calculated within 20 days of the beginning of each month using data from the previous twelve months. Usage shall be determined from monthly gas bills.

II.B.18.c.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.18.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.19

Conditions on Paint Booth and Print Plant Combined (12)

II.B.19.a

Condition:

Combined emissions of VOC from the Paint Booth and Print Plant shall not exceed 5.0 tons per rolling 12-month period. Combined HAP emissions from the Paint Booth and Print Plant shall not exceed 1.0 tons per rolling 12-month period. [Authority granted under R307-401-8(1)(a) (BACT); condition originated in DAQE-AN0354010-04]

II.B.19.a.1

Monitoring:

Emissions shall be calculated on a rolling 12-month total. Based on the first day of each month, a new 12-month total shall be calculated using data from the previous twelve months. Monthly calculations shall be made no later than 20 days after the end of each calendar month.

II.B.19.a.2

Recordkeeping:

VOC and HAP emissions shall be determined by maintaining a record of VOC and HAP emitting materials used each month. The records shall include the following data for each material used:

1. Name of the VOC or HAP emitting material, such as; paint, adhesive, solvent, thinner, reducers, chemical compounds, toxics, isocyanates, etc.
2. Density of each material used (pounds per gallon).
3. Percent by weight of VOC and HAP in each material used.
4. Gallons of each VOC and HAP emitting material used each month.
5. The amount of VOC and individual HAP emitted monthly by each material used, calculated by the following procedure:

$$\text{VOC} = \frac{(\% \text{ VOC by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$

$$\text{HAP} = \frac{(\% \text{ HAP by Weight})}{(100)} \times \frac{(\text{Density lb})}{(\text{gal})} \times (\text{Gal Consumed}) \times \frac{(1 \text{ ton})}{(2,000 \text{ lb})}$$

6. The total amount of VOC and HAP emitted monthly from all materials used.

7. The amount of VOC and HAP reclaimed for the month shall be similarly quantified and subtracted from the quantities calculated above, to provide the monthly total VOC and HAP emissions.

II.B.19.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.20

Conditions on Print Plant (24)

II.B.20.a

Condition:

Solvent wiping cloths shall be kept in covered containers when not in use. [Authority granted under R307-340-2(2)(b); condition originated in DAQE-AN0354010-04]

II.B.20.a.1

Monitoring:

Daily inspections shall be conducted to ensure that solvent laden rags are stored in closed containers when not in use.

II.B.20.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.20.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.20.b

Condition:

Solvents containing volatile organic compounds (VOC) shall be kept in covered containers when not in use. [Authority granted under R307-325-1(2); condition originated in DAQE-AN0354010-04]

II.B.20.b.1

Monitoring:

Daily inspections shall be conducted to ensure that VOC containing solvents are stored in closed containers when not in use.

II.B.20.b.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.20.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.21 **Conditions on Paint Booth (25)**

II.B.21.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.21.a.1 **Monitoring:**

In lieu of monitoring via visible emissions observations, the spray booth particulate capture system shall be inspected before each use to verify that it is functioning properly. Inspections shall consist of the following observations:

- (A) Inspection for holes in the particulate filters.
- (B) Inspection of the particulate filters to determine proper installation within the support rack.
- (C) Inspection of the exhaust fan to ensure that it is operating.

II.B.21.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.21.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.22 **Conditions on Huntsman Cancer Institute (Phase I) (26)**

II.B.22.a **Condition:**

Combined usage of natural gas by the boilers shall not exceed 212.10 MM SCF per rolling 12-month period. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.22.a.1 **Monitoring:**

Fuel consumption shall be determined on a rolling 12-month total with a new total calculated by the 20th day of each month using data from the previous 12 months. Usage shall be determined from monthly gas bills.

II.B.22.a.2 **Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.22.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.23 **Conditions on Huntsman Cancer Institute (Phase I)- NSPS Boilers (27)**

II.B.23.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.23.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.23.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.23.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.23.b

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0354010-04]

II.B.23.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.23.b.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.23.b.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.23.c

Condition:

The permittee shall keep monthly records of the amounts of each fuel combusted, for each affected emission unit (daily requirement has been revised to monthly frequency per approval letter from EPA Region VIII dated November 25, 2003). [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)]

II.B.23.c.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.23.c.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.23.c.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.23.d

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.23.d.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.23.d.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement =
$$\frac{\text{Total BTU content of fuel fired for annual maintenance}}{\text{annual BTU requirement}} * 100$$

II.B.23.d.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.24

Conditions on Huntsman Cancer Institute (Phase I)- Small Boilers (28)

II.B.24.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.24.a.1

Monitoring:

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60,

Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.24.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.24.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.24.b

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.24.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.24.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement =
(Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100

II.B.24.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25 **Conditions on Huntsman Cancer Institute- Diesel Em. Generators. (29)**

II.B.25.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.25.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.25.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.25.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.25.b **Condition:**

Use of each generator, including maintenance, shall not exceed 300 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.25.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.25.b.2 **Recordkeeping:**

Records shall be maintained for each generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.25.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.26 **Conditions on Huntsman Cancer Institute-Phase II-Boilers 1-2 (31)**

II.B.26.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.26.a.1 **Monitoring:**

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.26.a.2

Recordkeeping:

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.26.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.26.b

Condition:

Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall not exceed 1 percent of the total annual Btu production. In addition, maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.26.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.26.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that fuel oil was fired, the amount of fuel oil consumed, and the reason for firing fuel oil.

Records documenting the BTU content of all fuel fired annually and BTU content of all fuel fired for maintenance purposes shall be maintained. That information shall be used to demonstrate that annual boiler maintenance firings do not exceed 1 percent of the annual BTU requirement as follows:

Annual boiler maintenance firings as a percentage of annual BTU requirement = (Total BTU content of fuel fired for annual maintenance/annual BTU requirement)* 100

II.B.26.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.27 **Conditions on Huntsman Cancer Institute-Phase II-Generators (32)**

II.B.27.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.27.a.1 **Monitoring:**

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.27.a.2 **Recordkeeping:**

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.27.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.27.b **Condition:**

Maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.27.b.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.27.b.2 **Recordkeeping:**

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.27.b.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.28 **Conditions on Incinerator (33)**

II.B.28.a **Condition:**

Visible emissions shall be no greater than 20 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

- II.B.28.a.1 **Monitoring:**
Opacity observations of emissions shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.28.a.2 **Recordkeeping:**
Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.28.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.28.b **Condition:**
The permittee shall verify exemption from R307-222 (Emissions Standards: Existing Incinerators for Hospital, Medical, Infectious Wastes) by keeping readily accessible records demonstrating that only pathological, low-level radioactive, and chemotherapeutic wastes, or combination of those wastes, are being incinerated. [Authority granted under R307-222-1(2)(a)(ii); condition originated in R307-222-1(2)(a)(ii)]
- II.B.28.b.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.28.b.2 **Recordkeeping:**
Records shall be maintained as described in I.S.1 of this permit and shall include dates that the incinerator is used, and the type of waste burned.
- II.B.28.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.29 **Conditions on Fume Hoods (34)**
- II.B.29.a **Condition:**
A list of fume hoods located throughout the campus shall be maintained. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.29.a.1 **Monitoring:**
The list of fume hoods shall be reviewed every six months and updated as necessary.
- II.B.29.a.2 **Recordkeeping:**
Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.29.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.30 **Conditions on Fuel Storage Tanks (NSPS) (36)**

II.B.30.a **Condition:**

The permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be kept for the life of the source. [Authority granted under 40 CFR 60.116b(b); condition originated in 40 CFR Part 60.116b(b)]

II.B.30.a.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.30.a.2 **Recordkeeping:**

A copy of the required records shall be maintained and made available to the Executive Secretary upon request.

II.B.30.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.31 **Conditions on Eccles Critical Care Pavilion-NSPS Boilers 1-2 (38)**

II.B.31.a **Condition:**

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.31.a.1 **Monitoring:**

During periods when natural gas is being burned, use of that fuel type shall be verified in lieu of monitoring via visible emissions observations.

If a boiler is operated on fuel oil for longer than 12 consecutive hours, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified visible emissions observer (VEO). If the boiler continues to operate on fuel oil for consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.31.a.2 **Recordkeeping:**

Fuel records shall be maintained for demonstration of compliance with the opacity limitation during periods of natural gas usage.

For periods of fuel oil combustion, when an opacity observation or determination is required, a log of the results shall be maintained including all data required by 40 CFR 60, Appendix A, Method 9.

II.B.31.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.31.b

Condition:

Boilers 1-2 shall only be used during maintenance firings and during periods when the Upper Campus High Temperature Water Plant is out of service or when the connection to the Upper Campus High Temperature Water Plant is lost. Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.31.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.31.b.2

Recordkeeping:

Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that each fuel type was fired, and the reason for each fuel usage.

II.B.31.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.31.c

Condition:

The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0354010-04]

II.B.31.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.31.c.2

Recordkeeping:

All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.

II.B.31.c.3

Reporting:

The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

II.B.31.d

Condition:

The permittee shall keep daily records of the amounts of each fuel combusted each day. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)]

II.B.31.d.1

Monitoring:

Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.

II.B.31.d.2

Recordkeeping:

Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.

II.B.31.d.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.32

Conditions on Eccles Critical Care Pavilion-Diesel Generator. (39)

II.B.32.a

Condition:

Maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.32.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.32.a.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.32.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.32.b

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.32.b.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.32.b.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.32.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.33

Conditions on Emma-Eccles-Jones Medical Research- NSPS Boiler (41)

II.B.33.a

Condition:

Visible emissions shall be not greater than 10 percent opacity. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

- II.B.33.a.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.33.a.2 **Recordkeeping:**
In lieu of visible emissions observations, records of fuel usage shall be maintained to demonstrate that only natural gas is being burned.
- II.B.33.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.33.b **Condition:**
Boilers shall only be used during maintenance firings and during periods when the Upper Campus High Temperature Water Plant is out of service or when the connection to the Upper Campus High Temperature Water Plant is lost. Fuel shall be limited to natural gas with the exception of fuel oil combusted during maintenance firings and for periods of natural gas curtailment. Natural gas curtailment is defined as a period when the natural gas supplier imposes a curtailment or interruption of service, and the curtailment is involuntary and beyond the control of the permittee. Maintenance firings shall be scheduled between March 1st and October 31st. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.33.b.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.33.b.2 **Recordkeeping:**
Records documenting fuel usage shall be kept showing: dates that natural gas was fired, dates that fuel oil was fired, the duration in hours that each fuel type was fired, and the reason for each fuel usage.
- II.B.33.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.33.c **Condition:**
The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart A. [Authority granted under 40 CFR 60 (Subpart A); condition originated in DAQE-AN0354010-04]
- II.B.33.c.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.33.c.2 **Recordkeeping:**
All applicable records and notifications required by 40 CFR 60 Subpart A shall be maintained in accordance with provision I.S.1 of this permit.
- II.B.33.c.3 **Reporting:**
The permittee shall comply with the reporting requirements in Section I of this permit and any additional reporting and notification requirements of 40 CFR 60 Subpart A.

- II.B.33.d **Condition:**
- The permittee shall keep daily records of the amounts of each fuel combusted each day. [Authority granted under 40 CFR 60.48c(g); condition originated in 40 CFR 60.48c(g)]
- II.B.33.d.1 **Monitoring:**
- Fuel consumption for each affected emission unit shall be determined by a fuel meter, or other method approved by the Executive Secretary.
- II.B.33.d.2 **Recordkeeping:**
- Records of the amounts of each fuel combusted during each month for each affected unit shall be maintained as described in Provision I.S.1 of this permit.
- II.B.33.d.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.34 **Conditions on Emma-Eccles-Jones Medical Research-Generator (42)**
- II.B.34.a **Condition:**
- Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.34.a.1 **Monitoring:**
- Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.34.a.2 **Recordkeeping:**
- A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.34.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.34.b **Condition:**
- Maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.34.b.1 **Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.34.b.2 **Recordkeeping:**
- Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.34.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.35

Conditions on Moran Eye Center Phase I-Diesel Generator. (44)

II.B.35.a

Condition:

Maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.35.a.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.35.a.2

Recordkeeping:

Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.35.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.35.b

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.35.b.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.35.b.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.35.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.36

Conditions on Moran Eye Center Phase II-Diesel Generators. (46)

II.B.36.a

Condition:

Maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

- II.B.36.a.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.36.a.2 **Recordkeeping:**
Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.
- II.B.36.a.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.36.b **Condition:**
Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.36.b.1 **Monitoring:**
Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.36.b.2 **Recordkeeping:**
A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.36.b.3 **Reporting:**
There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.37 **Conditions on Health Sciences Education Bldg- Diesel Generator (47)**
- II.B.37.a **Condition:**
Start-up maintenance firing of each emergency generator shall not exceed 35 hours per rolling 12-month period. Emergency generators shall be used for electricity production only during periods when electric power from the utilities is interrupted. [Authority granted under R 307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]
- II.B.37.a.1 **Monitoring:**
Records required for this permit condition will serve as monitoring.
- II.B.37.a.2 **Recordkeeping:**
Records shall be maintained for the generator including: dates of use, reason for use (maintenance, emergency, other), total hours of start-up maintenance usage, total hours of emergency usage, total hours of usage calculated with a 12-month rolling total by the twentieth day of each month using the previous twelve months data.

II.B.37.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.37.b

Condition:

Visible emissions shall be no greater than 20 percent opacity except for operation not exceeding 3 minutes in any hour. [Authority granted under R307-401-8(1)(a) [BACT]; condition originated in DAQE-AN0354010-04]

II.B.37.b.1

Monitoring:

Opacity determinations shall be conducted annually in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.37.b.2

Recordkeeping:

A log of opacity observations shall be maintained in accordance with Provision I.S.1 of this permit. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.

II.B.37.b.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C. **Emissions Trading.**

(R307-415-6a(10))

Not applicable to this source.

II.D. **Alternative Operating Scenarios.**

(R307-415-6a(9))

Not applicable to this source.

Section III: PERMIT SHIELD

A permit shield was not granted for any specific requirements.

Section IV: ACID RAIN PROVISIONS.

This source is not subject to Title IV. This section is not applicable.

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

DAQE-AN0354012-06	dated July 12, 2006
DAQE-AN0354010-04	dated April 12, 2004

1. Comment on an item originating in DAQE-AN0354010-04 regarding permitted source (Source-wide)

The following changes were made thru the issuance of AO DAQE-AN0354010-04 and are included in this Title V Permit:

- 1) DAQE-081-02: AO condition #11 required that the boilers use natural gas only. The boilers are natural gas by design. In the new consolidated AO, the natural gas design feature is included in the emissions unit description and is no longer listed as a distinct permit condition.
- 2) DAQE-081-02: AO condition #12 required generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #11 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #12 was therefore unnecessary and was not carried forward into this permit.
- 3) DAQE-265-01: AO condition #11 required the generators to use 0.5 percent sulfur fuels or less in the generators. That condition was subsumed by a more stringent limitation in AO condition #10 which required #1 or #2 fuel oils. Since #1 and #2 fuel oils contain less than 0.5 percent sulfur by weight, AO condition #11 was therefore unnecessary and was not be carried forward into the new permit.
- 4) DAQE-264-01: AO condition #10 required that the boilers and comfort heating equipment use natural gas only. The boilers and comfort heating equipment are natural gas by design. In the new consolidated AO, the natural gas design feature was included in the emissions unit description and was not listed as a distinct permit condition.
- 5) DAQE-264-01: AO condition #4 incorrectly listed building 822 as the location for a 208 kW diesel generator. The building number was corrected to 821.
- 6) DAQE-128-01: AO condition #13 included the requirement that natural gas be used as primary fuel. UH Boilers (AO condition #6.A(6)-(8)), and boilers included in Misc. Equipment (AO condition #6.B.), can burn only natural gas by design. Hence, the natural gas design feature was listed in the new permit as part of the emissions unit description. A separate permit requirement for natural gas as primary fuel was retained for the LC Boilers (AO condition #6.A(1)-(5))because they have dual fuel capability.
- 7) DAQE-128-01: AO condition #6 listed four portable emergency diesel fired generators that have been removed and are no longer on site. Hence, these units are not

included in the consolidated AO. The emergency diesel generator-building list from AO condition #6 was also updated to change building 240 to building 213. Buildings 3, 4, 19, 35, 82, 697, 801, and 853 were also be added.

8) DAQE-712-99: AO condition #4 required annual training for all employees operating equipment. The Title V permit for the University of Utah includes record keeping and reporting conditions that sufficiently demonstrate whether or not equipment is being operated properly. For that reason, the annual employee training program was unnecessary and was not carried forth into the new AO.

9) DAQE-712-99: AO condition #9 required the paint booth to be equipped with particulate filters. In the new AO, that design requirement was included as part of the emissions unit description.

10) DAQE-962-96: AO conditions #6 and #7 established emissions limits and stack testing for the combustion laboratory. Those conditions were dropped because the emissions were not large enough to warrant periodic stack testing. Although SO₂ and NO_x emissions could be as high as 3.00 and 2.64 lbs/hr respectively, those emissions rates are representative of coal combustion which is limited to 960 hours/year for the kiln and 2500 hours/year for the U-furnace. Based on the calculated emissions in DAQE-962-96 for NO_x and SO₂ (1.02 and 1.05 tons per year respectively), and the fact that only the U-furnace remains, emissions are not large enough to warrant periodic stack testing.

11) DAQE-962-96: AO condition #4 was not carried forward into the new AO. Condition #4 was from an older version of the AO boiler-plate comprised of general requirements. That particular training requirement is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, the Combustion Lab, the training requirement was deemed unnecessary.

12) DAQE-962-96: AO condition #9E required daily record keeping of natural gas usage. That requirement was not carried over into the new AO because there is no daily limit for natural gas usage.

13) DAQE-0607-93: AO condition #5 was not carried forward into the new AO. Condition #5 required posting of the AO and employee training. That particular condition is from an older version of the AO boiler-plate comprised of general requirements and is no longer generally applied to all sources receiving new approval orders. Training requirements are reserved for special cases when appropriate. For this particular case, training for the fume hoods and posting of the AO is not deemed necessary as safe operation of the fume hoods is covered by OSHA and the Standard Operating Practices (SOPs) described in the University of Utah's "Chemical Hygiene Plan of the University of Utah" and "Safety and Health Manual".

14) DAQE-0607-93: AO condition #9 placed an opacity limit of 10% on laboratory Fume Hoods. The purpose of these hoods is for controlling fumes, not smoke. For that reason, an opacity limit on these hoods is not necessary and will not be included in the new AO.

- 15) Two NSPS boilers and an emergency generator were added to the Eccles Critical Care Pavilion.
- 16) The four boilers at the Huntsman Cancer Institute (Phase I) were retrofitted to burn both natural gas and diesel.
- 17) Two non-NSPS boilers and two emergency generators were added to the Huntsman Cancer Institute-Phase II.
- 18) One NSPS boiler and one emergency generator were added to the Emma Eccles Jones Medical Research Center.
- 19) One 500 kW diesel emergency generator were added to the Moran Eye Center Phase I.
- 20) An out of service boiler located at the Moran Eye Center Phase I, were listed for identification purposes only.
- 21) Two emergency generators were added to the Moran Eye Center-Phase II.
- 22) One emergency generator was added to the Health Sciences Education Building.
- 23) Several insignificant emissions units were listed for identification purposes only.
- 24) One Cauldron/ 2002-Winter-Olympics monument, was listed for identification purposes only.
- 25) UH Boilers are designated as natural gas/diesel design boilers. [Comment last updated on 12/06/2004]